

THE ROCKEFELLER INSTITUTE

NEW YORK 21, NEW YORK

November 27, 1961

Dr. F. H. C. Crick
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Cambridge, England

Dear Francis:

It was good to get your preprint, which I had heard about in Rome from Perutz and have now read without, to be frank, fully understanding the argument. I get the idea but I am rather slow and stupid in putting these genetic things together.

We are not attempting to break the code, but Ochoa has and, as you may have heard already through the grapevine, rather successfully. He used the nice trick of building polypeptides containing more than one amino acid by always using the excess poly-U as a background and mixing in various other bases or combination of bases. This has the great advantage of always producing an insoluble protein. He tells me that he has more or less fixed 12 amino acids, and that he doesn't find any indication of overlaps except a little in the case of leucine where he suspects a possible contamination.

It looks as if it is indeed a triplet code with your and their indications. From our own ideas, I would feel that an overlapping code is almost impossible to think of, so I am happy to see a non-overlapping code developing. I am not too happy, however, with the idea of what you call a degenerate code, that is, assigning several triplets to one amino acid. I have to agree that, from the biochemical side also, this is not quite excluded because there are some claims for several sRNA's for one amino acid. I am not convinced, however, that they are final. I have great trouble in imagining such a duplicity or maybe triplicity of coding for the same item.

Things are moving very fast suddenly and this fellow Nirenberg has given us a good push. We haven't anything really new to tell. We are hoping that by using the poly-U-polyphenylalanine system, the mechanism of peptide synthesis may be more easily approached. At the present we are most eager to get radioactive poly-U to see what happens to it during the polyphenylalanine synthesis and if all goes well we might have an answer in a few weeks. I am sending you a copy of the talk I gave in Rome, which does not contain anything much.

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So far, so good. We are very pleased with the prospect of having you here and I wish you could plan to spend a few days at the Institute. I have just talked to Palade who is chairman of the lecture program committee and he will write to you officially to ask you to talk about your recent doings late in February, on a Tuesday if possible which is the day for guest speakers.

With many good wishes,

Sincerely,



Fritz Lipmann